



Fairview Home Infusion FHI Highlights

Catheter-Associated Blood Stream Infections

Catheter-associated blood stream infections (CABSI's) have the potential to be life-threatening, particularly to patients who are immunocompromised. They can also lead to the need for hospitalization and result in the loss of venous access. According to the CDC, approximately 250,000 CABSI's occur annually in the United States. Improved patient outcomes and reduced healthcare costs can be achieved by reducing these infections.

There are a number of practices in the home care setting for prevention of CABSI's. These include:

- Adhering to the principles of aseptic technique
- Hand hygiene
- Use of maximal barriers for central line insertion
- Use of a chlorhexidine preparation or other approved antiseptics for cleansing the skin
- Allowing the antiseptic to dry completely prior to dressing application
- Avoid fanning, blotting or wiping off excess antiseptic solution
- Change catheter dressing according to established protocols or when damp, loosened or soiled
- Avoid using topical ointments or creams at the insertion site because of their potential to cause fungal infections and antimicrobial resistance
- Avoid submerging the catheter or catheter site in water; showering may be permitted when precautions are taken to protect the catheter and catheter site
- Use of a catheter stabilization device to reduce pistoning movement
- Vigorously scrubbing injection cap with alcohol for 15 seconds, allowing to dry before every use, and change according to established protocols
- Replacing the tubing and add-on devices at established intervals
- Flushing the catheter according to established protocols, which may reduce the development or proliferation of biofilm
- Instructing patients to monitor their catheter site daily and report any changes or discomfort

All CABI occurrences need to be reported to FHI. This allows us to accurately monitor infections, determine our infection rate and identify clusters of infections. Although it is challenging, we must continually strive to maintain safe practices and completely eliminate CABSI's.

DO YOU KNOW...

The manufacturer of **Chloraprep®**, which is used at FHI for skin antiseptics when changing a central line dressing, recommends using a back and forth scrubbing motion with friction when applying to the skin. This friction allows the antiseptic solution to penetrate into the cracks and fissures of the epidermal layer of skin where microorganisms can be harbored.



FHI Infectious Disease Team, from left to right: Tracy Temple, Ryan Bromander, Linda Amos, Diana Devi

Meet the Infectious Disease Team

The FHI Infectious Disease (ID) team monitors and manages patients receiving IV anti-infective therapy. The ID team has a wealth of expertise and experience in infusion therapy. All together they have 21 years of experience at FHI and 65 years of experience in their chosen field.

Linda Amos, RN, Clinical Nurse Coordinator has been with FHI for 9 years and in her current office position for 7 years. She coordinates new referrals and is a resource for patients and nurses. Linda enjoys the people she works with and coordinating care with nurses, physicians, home care agencies and patients. Linda grew up in Boone, Iowa and also enjoys reading and her eight grandchildren.

Ryan Bromander, PharmD, Clinical Pharmacist has been with FHI for 3 years and has previous ID experience in other pharmacy settings. Ryan enjoys many aspects of his role on the ID team including: keeping up his clinical skills, getting to know his patients and caregivers, coordinating care with physicians and nurses, and problem solving to make complex IV therapies *work* in the home. Ryan grew up all over Minneapolis. He enjoys going to movies and reading, but his passion is video games. He plays video games with people from all over the US and Canada.

Diana Devi, RPh, Clinical Pharmacist has been with FHI for 6 years. She enjoys the variety in her daily work day and working on projects. Diana grew up in the land of OZ, also known as Kansas. Her hobbies include Argentine tango dancing, body movement, travel to exotic places and cooking with healthy and/or organic foods. She is considering writing a cook book.

Tracy Temple, Pharmacy Coordinator has been with FHI for close to 3 years and a pharmacy technician for 8 years. Tracy speaks with patients on a daily basis to coordinate the delivery of their medications and supplies. She loves the patient interaction and being able to listen to them. Tracy grew up in Fridley, MN in the winter and Orangevale, CA in the summer. Her biggest interest is playing volleyball—she plays for about 5 teams. She also likes shoe and purse shopping, playing bingo and taking care of her "evil" cat (that only looks sweet and innocent).

Drug Allergy: Drug Hypersensitivity Reactions

The term *adverse drug reaction* refers to all adverse events related to administration of a medication. The majority of adverse drug reactions (75-80%) are the result of predictable, nonimmunologic effects. Drug hypersensitivity reactions (DHR's) is the broad term used to define reactions to a drug that are mediated by the immune system in a sensitized patient. DHR's represent a relatively small subset of all adverse drug reactions; 5-10% of drug reactions are true drug hypersensitivity reactions.

DHR's tend to mimic other diseases and may involve multiple organ systems, including severe systemic reactions such as: anaphylaxis, urticaria, angioedema, bronchospasm, pruritis, vomiting and diarrhea. Skin reactions are among the most common manifestations of DHR's, some examples are morbilliform rashes, urticaria (hives) and eczema. Other less common, but more severe reactions, include:

- Serum sickness-like symptoms
- Fever
- Pulmonary infiltrates with eosinophilia
- Hepatitis
- Acute interstitial nephritis
- Lupus like syndromes

DHR's typically develop within one to four weeks after the institution of drug therapy, unless someone has been previously sensitized to the drug.

Management of DHR's involve discontinuation of the offending agent and provision of supportive care. Anaphylactic reactions require prompt emergency treatment. Systemic corticosteroids may speed recovery in severe cases of DHR. Topical corticosteroids and oral antihistamines may also improve dermatologic symptoms. In most patients symptoms will resolve within two weeks if the diagnosis of DHR is correct.

Patients should generally avoid drugs that have previously caused a DHR because a more serious reaction is likely on re-exposure. If no suitable alternative exists, continuing therapy with an offending drug may be acceptable, if the risk of not treating the underlying disease is greater than the risk of continuing the drug.



Hand Hygiene Saves Lives

It is well documented that one of the most important measures for preventing the spread of germs and infection is effective hand hygiene. Performing hand hygiene correctly is critical for both nursing staff and patients receiving infusion therapy in the home care setting.



Hands should be washed with soap and water when:

- Visibly soiled to remove any contamination.
- In contact with patients experiencing diarrhea, since alcohol foam is ineffective against viruses that cause diarrhea.
- The alcohol foam builds up and feels "sticky" on your hands.

Important things to consider when washing hands with soap and water:

- Cover all surfaces, paying particular attention to cleaning under the fingernails.
- Use warm running water to reduce potential for dermatitis from hot water.
- Dry hands thoroughly to prevent them from getting chapped and reduce potential for spread of microorganisms. Damp hands spread 1,000 times more germs than dry hands.

Alcohol foam is a quick and effective method for performing hand hygiene. It kills 99.8% of germs living on the hands. Most alcohol foams also contain moisturizers, and therefore are kinder to hands than soap and water. Use alcohol foam after removing gloves, before and after patient contact, after exposure to body fluids and after contact with the patient's environment. When using alcohol foam, it is important to rub all areas of the hands until dry.

Hand hygiene is everyone's responsibility!

Activity Corner

What are the 5 "rights" of drug administration?

Answer: Right—patient, drug, dose, time and route.



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